



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

PRELIMINARY ISSUE

650.6511

Job Sheet 211477



Part No: 650.6511

Job Qty: 5 pcs

Part Name: Fill Port Adapter



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/17/20

Job Tracking No:

Due Date: 7/31/20

Created By: Jennifer Renwick

Type: SOLD

Description:

Note: 650.6500 REV.PB2 IPP REV:A 20.06.24 NEW ISSUE DD VERF:JFS

Ship Via:

139 Valve

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	SL-154 - 1	5 pcs	7/31/20		1.00	1.25	Doosan - 1	
							NLX 2500SY - 1	
							SL-154 - 1	
							SL-2500Y - 1	
110	QC 2	5 pcs	7/31/20		0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	
							QC 2 - 8	



Container No: S289466



Part: 650.6511

Job No: 211477

Serial No/Batch: S289466

Revision: REV.PB2

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 07/22/20

Plex 7/17/20 9:19 AM Dart.Renwick.Jennife

DAS
62
9-89

DAS
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9-89

7/17/2020

[Dart Hawkesbury] Job Sheet - Renwick, Jennifer

					QC 2 - 66	
					QC 2 - 64	
					QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
					QC 2 - 76	
					QC 2 - 86	
					QC 2 - 83	
120	QC 8	5 pcs	7/31/20	0.00 0.00	QC 8 - 12	
					QC 8 - 14	7/20/07/24
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 52	
					QC 8 - 23	
					QC 8 - 57	
					QC 8 - 76	
					QC 8 - 61	
					QC 8 - 66	
					QC 8 - 73	
					QC 8 - 82	
130	Outsource - 17 - Passivate	5 pcs	7/31/20	0.00 0.00	GR0002	2020-07-27
140	Packaging 2-1 - Receive - B4B	5 pcs	7/31/20	0.00 0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	110 JUL 30 2020
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	

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				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 37 - B4B	
150 QC 6	5 pcs	7/31/20	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	DAS
				QC 6 - 40	81
				QC 6 - 81	9-89
				QC 6 - 82	
					AUG 26 2020
160 Packaging 3-1 - Stock - B4B	5 pcs	7/31/20	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	DAS
				Packaging 3 - 16 - B4B	81
				Packaging 3 - 17 - B4B	9-89
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 37 - B4B	
					AUG 26 2020
170 QC 21 - SA	5 pcs	7/31/20	0.00 0.00	QC 21 - SA - 21	DAS
				QC 21 - SA - 70	21
				QC 21 - SA - 9	9-89
					AUG 26 2020

Part Op 100 - ****CRITICAL PART - EXTREME CARE MUST BE TAKEN**** **USE PORT TOOL** 1-Machine as per folio F
 Descriptions: FOLIO REV: AA DWG REV: PB1 2-Deburr

110 - QC2- Inspect parts off machine FAI/FAIB

120 - QC8- Inspect parts - second check

130 - -Issue P/O; 46796 PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required

140 - Certificate of Conformity is required

150 - QC6- All purchased or subcontracted products

160 - Identify as per dwg & Stock ****CRITICAL PART - EXTREME CARE MUST BE TAKEN**** **MUST ENSURE THE COMPONENTS ARE NEVER DAMAGE****

170 - QC21- Final Inspection - Work Order Release

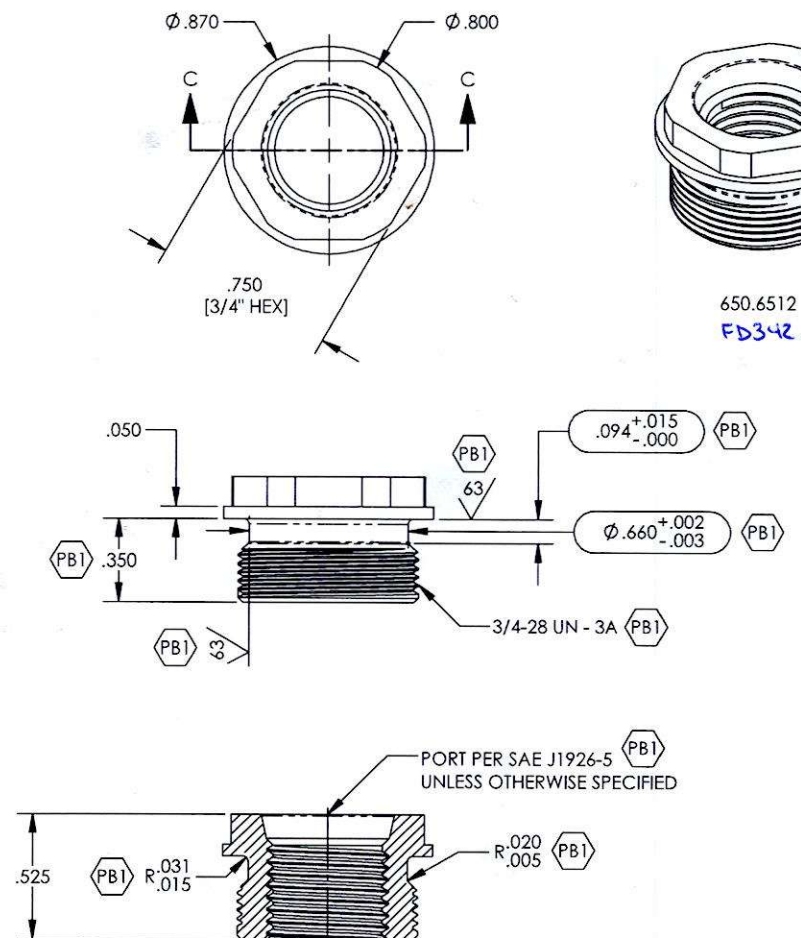
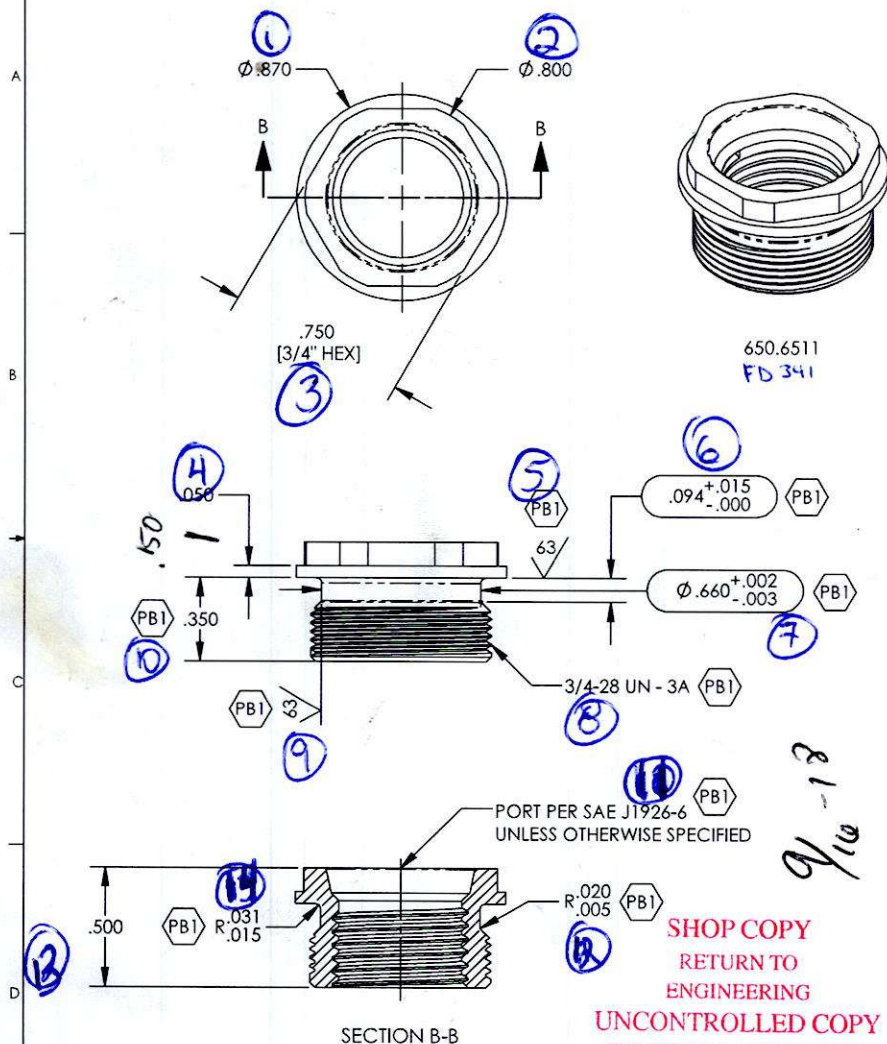
Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M303R1.000	303 Round Bar 1.00	.2700 ft (.054 ea)	100-SL-154 - 1	<u>5250215</u>

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-SL-154 - 1	M303R1.000	0	43	0
Part Specifications				
Specifications could not be found.				

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THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



SECTION B-B

SECTION C-C

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 211477

ORIGINAL DATE	04-29-2014	DART AEROSPACE		3030 ENTERPRISE CT., SUITE A
DRAWN BY	N. CAP	CHECKED	P. BRAVO	VISTA, CA 92081
DRAWING APPROVAL	P. BRAVO	(760) 724-5500		
CONTRACT NO.		APICAL INDUSTRIES, INC. DBA DART AEROSPACE		
PORT ADAPTERS				
SER	CAGE CODE	DWG. NO.	REV.	
B	07M26	650.6500	PB1	
SCALE		NONE	SHEET 2 OF 6	

DART AEROSPACE LTD

Work Order:

211477

Description: FILL PORT ADAPTER

Part Number:

650.6511

Inspection Dwg: 650.6500

Rev: PB1

Page 1 of 1

INSPECTION SHEET

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1	Ø .870	± .005	.870	✓		Mic	JB-09
2	Ø .800	± .005	.800	✓		Mic	JB-09
3	.750	± .005	.750	✓		Mic	JB-09
4	.050	± .005	.050	✓		Mic	JB-09
5	√63	-					Can't measure surface too small
6	.094	+ .015 / - .000	.102	✓		optical comp.	
7	Ø .660	+ .002 / - .003	.6597	✓		Blade Mic	LG- insp 6
8	¾ - 28 UN - 3A	M.O.W.	¾ - 28 UN 3A	✓		NOW + Mic .024	JB-09
	MAJOR Ø	.7500 / .7435	.7468	✓		Mic	JB-09
	M.O.W. (.024)	.7679 / .7650	.7664	✓		Mic	JB-09
9	√63	-	5.1	✓		SURFACE FINISHNESS	
10	.350	± .005	.3494	✓		optical comp.	
11	PORT SAE J1926-6	-	J1926-6	✓		Vernier	JB-01
	Ø .616	+ .005 / - .000	.615	✓		Vernier	JB-01
	.097 DEEP	+ .015 / - .000	.109	✓		Vernier	JB-01
	9/16 - 18 THREAD	GO / NO-GO	9/16 - 18	✓		GO / NO-GO	9/16 - 18
12	R .005	+ .015 / - .000	R .0125	✓		optical comp.	
13	.500	± .005	.4999	✓		Mic	JB-09
14	R .015	+ .016 / - .000	R .0225	✓		optical comp.	
	303 SS			✓		MILL TEST ATTACHED	
	AMS-5640					H/T 432071	
	PASSIVATED			✓		C OFC AL TECH	
						POR 3046796	
		DAS 62					DAS 82

Measured by:

JB

9-89

Checked by:

Amf

QC Inspector:

9-89

Date:

20.07.22

Date:

20/07/24

Date:

SEP 10 2020

Engineering Approval:
(If necessary)

Date:

Rev

Date

Change

Revised by

Approved

A

22-Jul-20

New Issue

MG

Mitutoyo **SurfTest SJ-400**

DATE 2000-02-13
TIME 20:00:32

STAND JIS2001
PROFILE R
FILTER GAUSS
EVA-L 0.016in
N 5
 λ_c 0.003in
 λ_s 100 μ in
TILT-COMP. ALL
CURVE-CMP. OFF
M-SPEED 0.004in/s
R-SPEED 0.04in/s
AUTO-RTN ON
RANGE 32000 μ in
 $\pm$ ESC
DRIVE ON
STYLUS STAND
PRE/POST ON

R-PROFILE

EVA-L 0.016in
 λ_c 0.003inX5

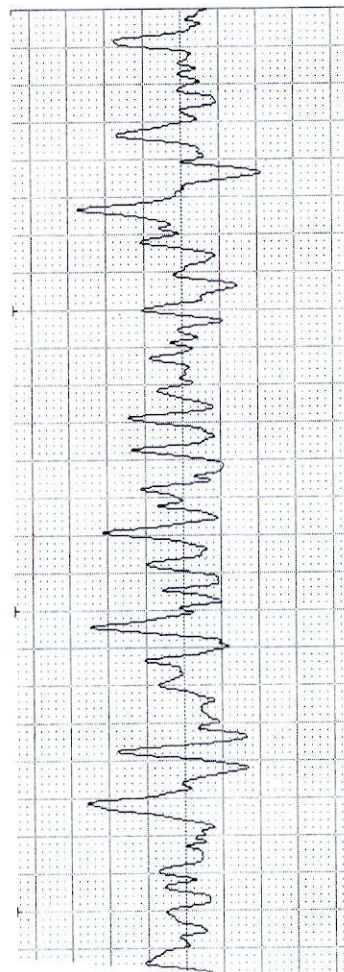
Ra 5.1 μ in
Rz 33 μ in
Rq 6.7 μ in

R-PROFILE

EVA-L 0.016in
 $\lambda_c=0.003inX5$

→x20K
x500

Ver. 50.000 μ in/in
Hor. 0.002in /in





Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046796



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB046796

PO Date: 7/27/20

Due Date: 8/4/20

Purchase Order

Revision:

Revision Date:

Issued By: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

E-MAILED
2020-07-28

Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	211477	650.6511	650.6500 REV.PB2	Fill Port Adapter -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed - X5	-	8/4/20	5 pcs	0 pcs	5 pcs	\$4.7619/pcs	\$23.81
2	210873	650.6213	650.6200 REV.PE1	Banjo -10 -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H1150 stainless steel -Certificate of Conformity is required	Firmed - X2	-	8/4/20	2 pcs	0 pcs	2 pcs	\$4.7619/pcs	\$9.52



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PURCHASE ORDER

POHB046796



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	210872	650.6210	650.6200 REV.PE1	BANJO -4 -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H1150 stainless steel -Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
									JUL 30 2020			
4	211168	650.6312	650.6300 REV.PG2	Screen Retainer -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
									JUL 30 2020			
5	210647	650.7711	650.7700 REV.PF1	Cap Retainer -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
									JUL 30 2020			



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PURCHASE ORDER

POHB046796



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6	210875	650.6316	650.6300 REV.PG2	Swivel Fitting -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X2	-	8/4/20	2 pcs	0 pcs	2 pcs	\$4.7619/pcs	\$9.52
7	211167	650.6310	650.6300 REV.PG2	Swivel Fitting -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
Grand Total:											\$100.00	

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/28/20 1:48 PM Dart.Guerin.Kimberley



Certificat de Conformité / Certificate of Compliance



0 2 9 8 6 9 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupealtech.com

Bon de Livraison / Packing Slip

029869 - 1

Livré à / Ship to

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA

Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD

1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA

BUYER:

Date expédition Ship date		Créé Par Generated By		Transport / No de Compte Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
28-Jul-2020		Ian Wilson				POHB046796			
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)			CATG. U/M	Quantités / Quantities			
						Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/ À venir/ Back Order
1	650.6511 Rev.PB2	650.6511 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces			PASSIVATION CH	5	5	0	0
2	650.6213 Rev.PE1	650.6213 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces			PASSIVATION CH	2	2	0	0
3	650.6210 Rev.PE1	650.6210 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces			PASSIVATION CH	3	3	0	0

DAS
81
9-89

RECEIVED

JUL 29 2020

DART AEROSPACE LTD.



Certificat de Conformité / Certificate of Compliance



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 www.groupealtech.com

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Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By		Transport / No de Compte Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.			
28-Jul-2020		Ian Wilson				POHB046796			
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order	
4	650.6312 Rev.PG2	650.6312 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminaints. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0	
5	650.7711 Rev.PF1	650.7711 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminaints. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0	
6	650.6316 Rev.PG2	650.6316 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF:-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminaints. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	2	2	0	0	0	



Certificat de Conformité / Certificate of Compliance



0 2 9 8 6 9 - 1

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029869 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
28-Jul-2020		Ian Wilson		POHB046796				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
7	650.6310 Rev.PG2	650.6310 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF.: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0

RECEIVED
 JUL 29 2020
 DART AEROSPACE LTD.

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

[Signature]

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.



Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
Telefono 0444.868211 - Fax 0444.963838
Stab.: 36100 BOLZANO (Italia) - Via A. Volta, 4/37
Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1

Certificato nr. MEST432174 / 2019 /
Prüfung/Test/Essai

Cliente / Besteller/Purchaser/Client

Stato di fornitura: Hot rolled - Annealed Cold Drawn
Lieferzustand
Delivery state
Etat de livraison

Produttore:
Herstellere/Hersteller/Usine productrice

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 903007442 Stock - Canada

Bestell
Your order
Commande

Tipo di Elaborazione: E+AOD
Erneuerungsart
Melting process
Mode d'élaboration

Marchi di Fabbrica:
Zeichen des Lieferwerkes
Trade marks
Sigles de l'usine productrice



Conferma ordine nr: E118002981

Werk/Our Order/Ref. nr.

Qualità: 303HS
Werke/Offiz. Handelsbezeichnung

Punzone del Collaudatore:
Stempel des Werkschwerstverständigen
Inspector's stamp/Plombon de l'essayeur

MR

Avviso di Spedizione: D-BZ19004707
Lieferanweisung/Shipping instr./B.L.

Marca: MV188ZHS (MAXIVAL)
Markenbezeichnung
Brand / Marque

Punzonatura: 303HS
Kesselbezeichnung
Marking
Marquage

SPECIFICHE:

Anforderungen / Requirements / Exigences

Note:

Anmerkungen / Notes / Notes

VSI 0 303 HS A,CF
AISI-303

AMS 6640 V S30300 A

AMS 6640 V TYPE1 A

ASME SA320 2017 B8F (0)

ASTM A314 2015 S30300

ASTM A320 2017A B8F (1)

ASTM A320 2017

ASTM A582 2012 S30300 A (2)

MIL-S-882 B/1 303

QQ-S-764 B/2 303 A

DAS
82
9-89

(0) Section II Part A 2017 EDITION Chemical analysis only.

(1) Chemical analysis only.

(2) Reapproved 2017

Tolleranza: ASTM A484-18A TABLE 7

Pos. nr. Pos. nr. No. de poste	Oggetto Objekt Produce description Description du produit	Dimensioni - in Abmessungen Dimensions Dimensions	Lunghezza - in Länge Length Longueur	Colata Schmelze Cast Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot no.
0010	Round	1,0000	146/ 146	432071	1	5.849	828910630

TEST ALLO STATO DI FORNITURA

Test on delivery condition / Prüfung auf lieferbarem produkt / Test a l'état de fourniture / Prueba sobre el material así como entregado

TEST	Prova/Prüfung Long. diam. Spine, Bore Diam. Ditch Wall Diam. Thickness Long. diam. Spine Ditch	Post. Seggio Anlage Lager	Snervamento Biegeversuch Tensile Stress Lüftung Rp 0,2% R _{0.2}	Snervamento Biegeversuch Tensile Stress Lüftung Rp 0,2% R _{0.2}	Resistenza Zugfestigkeit Tensile strength Reibvermögen Rm k.s.l.	Allungamento Bruchdehnung Elongation Allongement E _{4d} %	Strizione Bruchdehnung Reduction of area Striction RA %	Resilienza Härte Resilience Resilience HB	Durezza Härte Hardness Dureté HB
Valori richiesti Anforderungen/Required values Valeurs demandées		min max							140 255
A	12,5	68 L	72		101	42	56		244

TEST ALLO STATO DI FORNITURA

Test on delivery condition / Prüfung auf lieferbarem produkt / Test a l'état de fourniture / Prueba sobre el material así como entregado

TEST	min	max
A Grain size for ASTM E112		7

Mechanical properties according to ASTM A370.

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata / Steel Schmelze/Cast	min 8,030 max 0,030	0,20 1,00	1,50 3,00	17,00 19,00	0,00 0,00	1,00 10,00	0,00 0,100	0,32 0,400	0,009 0,0012				
C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	Zr %			
432071	0,037	0,45	1,85	17,05	0,46	0,65	8,26	0,164	0,032	0,33	0,0012		

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D

Vicenza, 02/07/19 VCC052 - MEST432174	Il collaudatore di stabilimento der Werkschwerstverständige / Works Inspector / L'agent d'usine M.RIZZOTTO	Direzione Qualità Qualitätsmanagement/Quality Management/Qualité R.BERTELLI	Direzione Prodotto Produktmanagement/Product Management/Direction Produit P.MESSORI	Pagina 1 di 2
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37634

4



Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
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In conformità a: **EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1**
Nach/According to/En

Certificato nr. **MEST432174 / 2019 /**
Prüfung/Testing/Exam

Cliente / Besteller/Durchmesser/Kunde

Stato di fornitura: **Hot rolled - Annealed Cold Drawn**
Lieferzustand
Delivery state
Etat de livraison

Produttore:
Hersteller/Usine produce

Ordine nr: **903007442 Stock - Canada**

Bestell
Your order
Commande

Tipo di Elaborazione: **E+AOD**
Erstellungsort
Melting process
Métal d'élaboration

ACCIAIERIE VALBRUNA S.P.A.

Marchi di Fabbrica:
Zeichen des Lieferanten
Trade marks
Signes de l'usine productrice



Conferma ordine nr: **EI19002981**

Werk/Our Order/Ref. nr.

Qualità: **303HS**
Verfahren/Grade/Qualität

Punzone del Collaudatore:
Stempel des Werksachverständigen
Inspector's stamp/Plaque of the factory

MR

Avviso di Spedizione: **D-BZ19004707**
Lieferanweisung/Packing instr. L.

Marca: **MV188ZHS (MAXIVAL)**
Markenbezeichnung
Brand / Marque

Punzonatura: **303HS**
Kennzeichnung
Marking
Marquage

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Micro and macro etch test : OK
Reduction ratio = 44,2 : 1
Annealing temperature : 1950° F for 1h/water.
Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind z. Anlage erfüllt
The material has been furnished in accordance with the requirements
Le matériel a été fourni conforme aux exigences

Controllo antimiscelanza: OK
Verwechslungsprüfung: spezialanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antimelange fait: r.a.k.

Controllo visivo e dimensionale: soddisfa le esigenze
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks satisfactory
Contrôle visuel et dimensionnel: satisfaisant

Melted and manufactured in Italy

No welding or weld repair Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

The Quality Management System is also Certified according Pressure Equipment Directive 2014/68/EU Annex 1, chapt. 4.3 by TÜV and LLOYD'S
Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.
Maxival and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2015, IATF 16949 : 2016, AS 9100D

Vicenza, 02/07/19
VCO052 - MEST432174

Il collaudatore di stabilimento
der Werksachverständige / Works Inspector / L'agent d'usine
M. RIZZOTTO

Direzione Qualità
Quality Management/Quality Management/Qualité
R. BERTELET

Direzione Prodotto
Production Management/Product Management/Direction Produit
P. MESSORI

Pagina
2 di 2